D7412GV4 Series Control Panels

www.boschsecurity.com

BOSCH
Invented for life

- Fully integrated intrusion, fire, and access control allows users to interface with one system instead of three
- Conettix IP-based communication options provide high-speed, secure alarm transport and control through connection of wired and/or wireless cellular network interfaces
- Up to 8 programmable areas each supporting both with perimeter and interior points with your choice of touch screen, ATM style, or LED keypads
- 75 points with flexible configuration options to meet multiple installation requirements
- OPTIONAL GV4 version 2.00 firmware upgrade available **(NEW)**

GV4 panels are the premier commercial control panel line from Bosch. GV4 panels integrate intrusion, fire and access control providing one simple user interface for all systems. With the ability to adapt to large and small applications, the D7412GV4 provides up to 75 individually identified points that can be split into 8 areas. The control panel includes a communicator that sends events to selected public switched telephone network (PSTN), IP network, or cellular network destinations through four programmable route groups. With the D7412GV4 you can:

- Monitor alarm points for intruder or fire alarms while operating keypads and other outputs
- Program all system functions local or remote using Remote Programming Software (RPS) or by using basic programming through the keypad.
- Add up to two doors of access control using the optional D9210C Access Control Interface Module.

Functions

Programmable Outputs

- 2 A alarm power at 12 VDC
- 1.4 A auxiliary power at 12 VDC
- Four alarm-output patterns
- Programmable bell test

System Response

- High-performance micro-controller provides industry-leading system response
- High-speed device bus (NEW)
- 31 custom point indexes, including fire supervisory
- Selectable point response time
- Cross point capability
- Fire alarm verification
- Fire inspector's local test
- Watch mode
- Scheduled events (SKEDs) arm, disarm, bypass and unbypass points, control relays, control authority levels, and control door access

User Interface

- Supervision of up to 16 keypads (up to 32 unsupervised keypads can be used)
- Remote Programming Software (RPS) Lite allows end users to perform control panel management tasks – Add/Delete/Change user passcodes and authorities, view and print the panel history event log

- Custom keypad text is fully programmable, including remote programming
- Full function command menu including Custom Functions
- Authority by area and 16-character name for each user
- 14 custom authority levels control user's authority to change, add, or delete passcodes or access control credentials; to disarm or bypass points; and to start system tests

Area Configurations
Area programming offers a wide selection of different system configurations. Each area is assigned an account number to define annunciation, control, and reporting functions. Multiple areas can be linked to a shared area which is automatically controlled (hallway or lobby). Area arming can be conditional on other areas (master or associate). Any area can be configured for perimeter and interior arming, not requiring a separate area for this function.

Custom Functions
For added convenience, Custom Functions can be programmed to eliminate keystrokes for users allowing the installer to program an easy command for a complicate function. For example, a custom function can be written to bypass a group of points and arm the system, allowing the user to perform this function with one easy command. This can be used to control a particular room, or even a single door allowing customized access. In additions, Custom Functions can be activated with a token or card, or automatically as a scheduled event (SKED) providing further flexibility and ease of use.

Door-Activated Custom Function
A custom function activates when user credentials are presented to a D9210C Access Control Interface Module door controller's reader. The custom function behaves as though the user performed a function at the keypad associated with the door controller.

Passcode Security
For high security applications, GV4 can be configured for several different passcode options.

- Dual Authentication – requires a user to enter their passcode and also use a token or card (NEW).
- Two-Man Rule - Requires two people with two unique passcodes to be present at the time of opening.
- Early Ambush - Allows users to verify that the facility is safe by requiring two passcode entries at different keypads within the same area, sending a duress event if the user does not enter the passcode a second time after inspecting the premises.

Easy Exit Control
The D7412GV4 Control Panel changes from one armed state to another armed state without disarming. For example, if you change the state from Perimeter Arm to Master Arm, the control panel complies and reports the change. Easy Exit Control reduces the number of keystrokes, simplifying system operation.

Programmable Passcode-controlled Menu List
The system prompts users to enter a passcode prior to viewing the keypad menu. The keypad display shows the user the menu options allowed according to the user's authority level. Passcode-controlled menus provide users only with the options and information pertinent to them, simplifying system operation.

Flexible Control
The system provides the flexibility to select added convenience or high security. For example, you can restrict passcode arming and disarming to a keypad's immediate local area, even if the user has access to other areas. This is particularly useful for high security areas, where a user may have access to the area, but would prefer to only disarm the area individually rather than with the rest of the system. Another option is to program the system to disarm all areas the user can access from any keypad.

Invisible Walk Test
A menu item allows the user to test invisible 24-hour points within the scope of the keypad without sending a report to the central station.

System Users
The system supports up to 399 users, each can have a passcode, an access token and a wireless keyfob. User passcodes contain three to six digits. Passcodes can be assigned to one of 14 customized authority levels in each area and can be restricted to operate only during certain times.

Communication Formats
The D7412GV4 Control Panel prioritizes and sends reports in Contact ID or Modem IIIa^2 communications formats to four route groups. Each group has a programmable primary and backup destination.
The D7412GV4 provides flexible communications for most central stations with reporting capabilities such as:

- Individual point numbers
- Opening or closing reports by user and area number
- Remote programming attempts
- Diagnostic reports

IP Communication
The D7412GV4 uses the B420 Ethernet Communication Module, DX4020, and/or the ITS-DX4020-G Cellular Communicator to communicate with the Conettix D6600 and D6100i Communications Receiver/Gateways. Using Conettix IP communication offers a secure path that includes anti-replay/anti-substitution features and provides enhanced security with encryption. The B420, DX4020 and ITS-DX4020-G can all be used for remote programming.
GV4 is the first Security Control panel to support DNS (Domain Name System) for both remote programming and central station communication. DNS provides ease of use, eliminating the need to use static IP addresses as your reporting destination, and accommodates a simple solution for central station disaster recovery.

IP Setup is available via the installer keypad menus and the remote programming software, eliminating the need to use complicated internet programming tools such as ARP and Telnet (NEW).

Communication Paths
D7412GV4 Control Panels accommodate up to four separate destinations for primary, alternate, and backup receivers for automatic test reports.
When resetting alarms or arming or disarming a system, the user is identified by name and number.

Firmware Updates (NEW)
Remote firmware updates using the RPS Firmware Update wizard through the IP connection (B420 Ethernet Communication Module) as well as an on-site flash update key, provides for easy feature enhancements without replacing ROM chips.

***For GV4 version 2.00 firmware update information, refer to the, *"GV4 version 2.00 firmware updates" datasheet* to learn more about key enhancements, and supported products.**

A wide variety of input options
Each point:
- Accommodates normally-open (NO) and normally-closed (NC) devices with end-of-line (EOL) resistor supervision.
- Is programmable for fire, fire supervisory, or intrusion application.
- Can be hard-wired, addressable, or wireless.

Security and Fire Detection
The D7412GV4 Control Panel provides eight on-board points, and up to 67 additional off-board points. You can program individual points to monitor all types of burglar alarms, fire alarms, and supervision devices.

Access Control
The D7412GV4 provides custom door strike, point shunt and auto disarming response by area. There are 14 panel-wide access levels with both manual and scheduled control.
Store, view, or print access events such as:
- Access granted
- No entry
- Request-to-enter
- Request-to-exit

Wireless Interface
The B820 SDI2 Inovonics Interface Module connects an Inovonics EN4200 Serial Receiver to the control panel SDI2 bus, allowing this UL Listed (NEW) wireless system to be programmed locally via the panel keypad, as well as remotely through RPS.

Event Log
The event log stores up to 1,000 local and transmitted events. The event log includes time, date, event, area, point, user number, and transmission status (NEW). View the event log from a keypad or use RPS to remotely retrieve event information. RPS operators can retrieve events periodically using one call, rather than receiving several calls each day. When the event log reaches a programmed threshold of stored events, it can send an optional report to a receiver.

Scheduled Events (SKEDs)
The internal clock and calendar start individually scheduled events (SKEDs). SKEDs perform functions such as arm or disarm, relay control, or point bypassing. The D7412GV4 Control Panel offers:
- 40 scheduled events with up to 25 different functions
- Eight opening windows and eight closing windows
- Eight user windows
- Day-of-week, date-of-month, or holiday only schedules
- Four holiday schedules of 366 days each (leap year)

Fire Test
When a user activates Fire Test Mode, the control panel suppresses all reports to the central station. The keypad and annunciator show all testing data. An automatic sensor reset feature saves time; you do not need to reset the sensors manually. At the end of test, the keypad shows the number of untested points.

Programming, Diagnostics and Controls
Installers can program locally or remotely through RPS as well as basic keypad programming. A programmable system passcode prevents unauthorized remote programming.

Two Data Buses
GV4 provides 2 data buses which support a wide array of components. The SDI bus supports keypads access and communications modules and also allows connection of existing components in a retrofit application. The new SDI2 bus supports input and output devices as well as a new interface module, and an Ethernet communicator. SDI2 allows these devices to be mounted up to 1000 ft (305 m) from the control panel, providing installation convenience and flexibility.

Commercial Fire Alarm Support
Suitable for Commercial Fire (UL 864, 9th Edition) applications.

Certifications and approvals

USA:

UL 365	Police Station Connected Burglar Alarm Units and Systems
UL 609	Local Burglar Alarm Units and Systems
UL 636	Holdup Alarm Units and Systems
UL 864	Control Units and Accessories for Fire Alarm Systems (Commercial Fire)
UL 985	Household Fire Warning System Units
UL 1023	Household Burglar Alarm System Units
UL 1076	Proprietary Burglar Alarm Units and Systems
UL 1610	Central Station Burglar Alarm Units

ANSI/SIA CP-01:2010	False Alarm Reduction
CSFM	California Office of The State Fire Marshall 7165-1615:0242 Control Unit (Commercial)
FM 3010	
FCC Part 15 Class B, Part 68	

Region	Certification	
USA	FDNY-CoA	#6102 UL 864 9th Edition [D9412GV4, D7412GV4]
	UL	AMCX.S1871, Central Station Alarm Units; AMTB. S1871, Control Panels, SIA False Alarm Reduction; AOTX.S1871, Local Alarm Units; APAW.S1871, Police Station Alarm Units; APOU.S1871, Proprietary Alarm Units; NBSX.S1871, Household Burglar Alarm System Units; UOJZ.S1871, Control Units, System; UTOU.S1871, Control Units and Accessories, Household System Type
	CSFM	7167-1615:0243
	CSFM	7165-1615:0242
Brazil	ANATEL	1083-12-1855

Installation/configuration notes

Compatible Products

Keypads

D1265 Touch Screen Keypad

D1255 Series Keypads
(D1255, D1255W, D1255B, D1255RB, D1265)

D1260 Series Keypads
(D1260, D1260W, D1260R, D1260BLK, D1260B)

D1256RB Fire Keypad

D1257RB Remote Fire Alarm Annunciator

D720 Series Keypads
(D720, D720W, D720R, D720B)

D279A Independent Zone Control

Detectors

D278S Four-wire Addressable Detector Base, 12 VDC

D285/TH Photoelectric Smoke Detector Heads

D298S Addressable Detector Base, 24 VDC

D7050 Series Addressable Photoelectric Smoke and Smoke Heat Detector Heads

F220-B6PM/S 12/24 VDC Addressable Detector Bases with POPITs

FCC-380 Carbon Monoxide Detector

MX775i Addressable PIR Detector

MX794i Long Range Multiplex PIR Detector

MX934i Addressable PIR Detector

MX938i Addressable PIR Detector

ZX776Z PIR Detector

ZX794Z Long Range PIR Detector

ZX835 TriTech Microwave/PIR Detector

ZX935Z PIR Detector

ZX938Z PIR Detector

ZX970 PIR/Microwave Detector

Bosch conventional detectors, including Professional Series, Blue Line Gen2, Blue Line, Classic Line, Commercial Line, and Ceiling Mount motion detectors, as well as glass break, seismic, request-to-exit, photoelectric, heat, and smoke detectors.

Enclosures

D8103 Universal Enclosure

D8108A Attack-resistant Enclosure

D8109 Fire Enclosure

Magnetic Contacts

Bosch magnetic contacts include recessed, terminal connection, miniature, overhead door, and surface mount.

Modules

Conettix B426 Ethernet Communication Module (NEW)

B208 Octo-input Module

B308 Octo-output Module

B520 Auxiliary Power Supply Module (NEW)

B820 SDI2 Inovonics Interface Module

Conettix B420 Ethernet Communication Module

Conettix ITS-DX4020-G Cellular Integrated Communicator

Conettix DX4020 Network Interface Module

Conettix DX4010V2 USB/Serial Interface Module

Conettix C900V2 Dialer Capture Module

D113 Battery Lead Supervision Module

D125B Dual Class B Initiating Module

D127 Reversing Relay Module

D129 Class A Initiating Module

D130 Auxiliary Relay Module

D185 Reverse Polarity Signaling Module

D192G Notification Appliance Circuit Module

D928 Phone Line Switcher

D5060 MUX Programmer

D8125 POPEX Point Expander

D8128D OctoPOPIT Eight-point Expander

D8125MUX Point Expander

D8125INV Wireless Interface Module

D8129 Octo-relay Module

D8130 Door Release Module

D9127 Series POPIT Modules

D9131A Parallel Printer Interface Module

D9210C Access Control Interface Module

DS7432 Eight-input Remote Module

DS7457i Series Single-zone Multiplex Input Modules

DS7460i Two-input Module

DS7461i Single-input Multiplex Module

DS7465i Input and Output Module

ICP-SDI-9114 SDI Splitter

Transformers

D1640 Transformer

D1640-CA Transformer

Programming

RPS or RPS-LITE Remote Programming Software

Readers

ARD-R10 iCLASS Mullion Reader

ARD-R40 iCLASS Switchplate Reader

ARD-RK40-09 iCLASS PIN Reader

ARD-VSMART iCLASS Reader

D8223 Prox Pro Reader

D8224 Mullion Reader

D8224-SP Switch Plate Reader

D8225 Mini Mullion Reader

D8301W Low-profile Proximity Readers

Wireless

B820 SDI2 Inovonics Interface Module

SDI2 Inovonics Interface and Receiver Kit. Includes B820 and EN4200 (ENKIT-SDI2)

EN1210 Universal Transmitter (Single-input)

EN1210EOL Universal Transmitter with EOL Resistor

EN1210W Door-Window Transmitter with Reed Switch

EN1215EOL Universal Transmitter with Wall Tamper, Reed Switch, and EOL Resistor

EN1223D Water-resistant Pendant Transmitter (Double-button)

EN1223S Water-resistant Pendant Transmitter (Single-button)

EN1224-ON Multiple-Condition Pendant Transmitter

EN1233D Necklace Pendant Transmitter (Double-button)

EN1233S Necklace Pendant Transmitter (Single-button)

EN1235D Beltclip Pendant Transmitter (Double-button)

EN1235DF Fixed-location Transmitter (Double-button)

EN1235S Beltclip Pendant Transmitter (Single-button)

EN1235SF Fixed-location Transmitter (Single-button)

EN1247 Glass-break Detector Transmitter

EN1249 Bill Trap Transmitter

EN1242 Smoke Detector Transmitter

EN1260 Wall Mount Motion Detector

EN1261HT High Traffic Motion Detector

EN1262 Motion Detector with Pet Immunity

EM1265 360° Ceiling Mount Motion Detector

EN4200 Serial Receiver

EN5040-T High Power Repeater with Transformer

Parts included

The D7412GV4 includes the following parts:

Quant.	Component
1	D7412GV4 Board
1	Mounting Skirt
1	Faceplate with D7412GV4 Label
1	Literature pack • Installation Instructions • Owners Manual • Release Notes
1	Literature CD containing all product literature

The available kits come with the parts indicated in the following table:

	Kits			
Components	-A	-B	-C	-D
D7412GV4 Board	1	1	1	1
D101 Lock and Key Set	1		1	1
D101F Lock and Key Set		1		
D122 Dual Battery Harness		1		
D161 Dual Modular Phone Cord		2		
D928 Dual Phone Line Switcher		1		
D1640 Transformer		1	1	1
D6103 Enclosure				1
D8103 Enclosure			1	
D8108A Attack-resistant Enclosure	1			

D8109 Fire Enclosure	1

Technical specifications

Communications

Telephone Connection:	• One telephone line • D928 Dual Phone Line Module required for two telephone lines

Environmental Considerations

Relative Humidity:	5% to 93% at +30°C (+86°F), non-condensing
Temperature (Operating):	0°C to +50°C (+32°F to +122°F)

Number of...

Areas:	8
Card Readers (Doors):	2
Credentials (Tokens):	399
Custom Functions:	4
Events:	Up to 1000
Passcode Users:	399, plus 1 service passcode
Parallel Printers:	1
Points:	75 (8 on-board, up to 67 off-board)
Programmable Relay Outputs:	67
RF Points:	67
SKEDs:	40

Power Requirements

Current Draw (Maximum):	300 mA
Output (Alarm):	2 A at 12 VDC
Output (Auxiliary, Continuous Power, and Switched Auxiliary combined):	1.4 A at 12 VDC nominal
Voltage (Operating):	12 VDC nominal
Voltage (AC):	16.5 VAC 40 VA plug-in transformer (D1640)

Trademarks

Inovonics is a trademark of Inovonics Wireless Corporation.

Ordering information

D7412GV4 75 Point Control Communicator
Order number **D7412GV4**

D7412GV4-A Attack-resistant Package
Contains one PCB, one transformer, and one attack-resistant enclosure.
Order number **D7412GV4-A**

D7412GV4-B Fire/Burglar Package
Contains one PCB, one dual battery harness, two telephone cords, one telephone line switcher, one transformer, and one fire enclosure.
Order number **D7412GV4-B**

D7412GV4-C Standard Burglar Package
Contains one PCB, one lock and key set, one transformer, and one universal enclosure.
Order number **D7412GV4-C**

D7412GV4-D Burglar PAckage
Contains one PCB, one lock and key set, one transformer, and one D6103 Enclosure.
Order number **D7412GV4-D**

Accessories

SDI2 Inovonics Interface and Receiver Kit
Kit containing B820 and EN4200 for use on SDI2 bus panels.
Order number **ENKIT-SDI2**

D928 Dual Phone Line Switcher
Allows the control panel to operate over and supervise two separate phone lines. Only one D162 phone cord is supplied. Two additional D161 or D162 phone cords are required.
Order number **D928**

D101 Lock and Key Set
Short-body lock set with one key supplied. Uses the D102 (#1358) replacement key.
Order number **D101**

D122 Dual Battery Harness
Harness with circuit breaker. Connects two batteries to a compatible control panel.
Order number **D122**

D122L Dual Battery Harness with Long Leads
Color-coded harness with circuit breaker and leads measuring 89 cm (35 in.). Connects 12 V batteries to compatible control panels.
Order number **D122L**

D126 Standby Battery (12 V, 7 Ah)
Sealed lead-acid standby and auxiliary rechargeable power supply.
Order number **D126**

D1218 Battery (12 V, 18 Ah)
A 12 V sealed lead-acid battery for standby and auxiliary power with two bolt-fastened terminals. Includes hardware for attaching battery leads or spade connectors
Order number **D1218**

D1224 Battery (12 V, 26-28 Ah)
A 12 V sealed lead-acid battery for standby and auxiliary power with two bolt-fastened terminals. Includes hardware for attaching battery leads or spade connectors.
Order number **D1224**

D1238 Battery (12 V, 38 Ah)
A 12 V sealed lead-acid battery for standby and auxiliary power with two bolt-fastened terminals. Includes hardware for attaching battery leads or spade connectors.
Order number **D1238**

D137 Mounting Bracket
Used to mount accessory modules in D8103, D8108A, and D8109 enclosures.
Order number **D137**

D138 Mounting Bracket, Right Angle
Used to mount accessory modules in D8103, D8108A, and D8109 enclosures.
Order number **D138**

D1640 Transformer
System transformer rated at 16.5 VAC, 40 VA.
Order number **D1640**

D8004 Transformer Enclosure
For applications such as fire alarm that might require a transformer enclosure.
Order number **D8004**

D9002-5 Mounting Skirt
Mounts inside D8103, D8108A, and D8109 enclosures. Can accept up to six standard 7.62 cm x 12.7 cm (3 in. x 5 in.) cards.
Order number **D9002-5**

D110 Tamper Switch
Screw-on tamper switch that fits all enclosures. Shipped in packages of two.
Order number **D110**

ICP-EZTS Dual Tamper Switch
Combination tamper switch with a wire loop for additional tamper outputs.
Order number **ICP-EZTS**

D8108A Attack Resistant Enclosure
Grey steel enclosure measuring 41 cm x 41 cm x 9 cm (16 in. x 16 in. x 3.5 in.). UL Listed. Includes lock and key set. Requires the D2402 Mounting Plate.
Order number **D8108A**

D8103 Enclosure
Grey steel enclosure measuring 41 cm x 41 cm x 9 cm (16 in. x 16 in. x 3.5 in.).
Order number **D8103**

D8109 Fire Enclosure
Red steel enclosure measuring 40.6 cm x 40.6 cm x 8.9 cm (16 in. x 16 in. x 3.5 in). UL Listed. Includes a lock and key set.
Order number **D8109**

Software Options

RPS Kit (USB)
Account management and control panel-programming software with USB security key (dongle).
Order number **D5500C-USB**

Represented by:

Americas:
Bosch Security Systems, Inc.
130 Perinton Parkway
Fairport, New York, 14450, USA
Phone: +1 800 289 0096
Fax: +1 585 223 9180
security.sales@us.bosch.com
www.boschsecurity.us

Europe, Middle East, Africa:
Bosch Security Systems B.V.
P.O. Box 80002
5617 BA Eindhoven, The Netherlands
Phone: + 31 40 2577 284
Fax: +31 40 2577 330
emea.securitysystems@bosch.com
www.boschsecurity.com

Asia-Pacific:
Robert Bosch (SEA) Pte Ltd, Security Systems
11 Bishan Street 21
Singapore 573943
Phone: +65 6571 2808
Fax: +65 6571 2699
apr.securitysystems@bosch.com
www.boschsecurity.asia

China:
Bosch (Shanghai) Security Systems Ltd.
201 Building, No. 333 Fuquan Road North IBP
Changning District, Shanghai
200335 China
Phone +86 21 22181111
Fax: +86 21 22182398
www.boschsecurity.com.cn

America Latina:
Robert Bosch Ltda Security Systems Division
Via Anhanguera, Km 98
CEP 13065-900
Campinas, Sao Paulo, Brazil
Phone: +55 19 2103 2860
Fax: +55 19 2103 2862
al.securitysystems@bosch.com
www.boschsecurity.com

© Bosch Security Systems 2013 | Data subject to change without notice
2495670155 | en, V8, 30. Jan 2013